| Notice of Allowability   | Application No.   | Applicant(s)  |
|--|---|---|
|  | 09/646,906  | NAGASHIMA, MITSUNORI  |
|  | Examiner  | Art Unit  |
|  | Anatoly Vortman   | 2835  |
|  | Anatoly Vortman   | 2033  |
| The MAILING DATE of this communication appeared all claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313   | (OR REMAINS) CLOSED in this ap<br>or other appropriate communication<br>IGHTS. This application is subject to | plication. If not included will be mailed in due course. THIS |
| 1. X This communication is responsive to amendment filed on 1  | 10/10/03.   |   |
| 2. The allowed claim(s) is/are 1,2 and 4 (renumbered),2 and 4 (renumbered).  |   |   |
| 3. The drawings filed on 10 October 2000 are accepted by the Examiner.   |   |   |
| <ul> <li>4.</li></ul>  |   |   |
| 1. Certified copies of the priority documents have been received.  |   |   |
| 2. Certified copies of the priority documents have been received in Application No.  |   |   |
| 3. Opies of the certified copies of the priority documents have been received in this national stage application from the  |   |   |
| International Bureau (PCT Rule 17.2(a)).   |   |   |
| * Certified copies not received:  5. Asknowledgment is made of a gloim for demostic priority under 35 U.S.C. 5.410(a) (to a provincinal profile time) since a partification of the control of the c |   |   |
| 5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  |   |   |
| (a) The translation of the foreign language provisional application has been received.   |   |   |
| <ol> <li>Acknowledgment is made of a claim for domestic priority ur<br/>in the first sentence of the specification or in an Application</li> </ol>   | nder 35 U.S.C. §§ 120 and/or 121 si<br>Data Sheet. 37 CFR 1.78.   | ince a specific reference was included                        |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |   |   |
| 7. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.   |   |   |
| <ul> <li>8. ☐ CORRECTED DRAWINGS (as "replacement sheets") mus</li> <li>(a) ☐ including changes required by the Notice of Draftspers</li> <li>1) ☐ hereto or 2) ☐ to Paper No</li> </ul>   |   | 948) attached   |
| (b) 🔲 including changes required by the proposed drawing correction filed, which has been approved by the Examiner.  |   |   |
| (c) 🔲 including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No  |   |   |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).  |   |   |
| 9. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FOR T   | sit of BIOLOGICAL MATERIAL r<br>HE DEPOSIT OF BIOLOGICAL MA   | must be submitted. Note the TERIAL.                           |
| Attachment(s)  |   |   |
| 1☐ Notice of References Cited (PTO-892)  | 5 Notice of Informal Pa   | itent Application (PTO-152)                                   |
| <ul> <li>2 Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3 Information Disclosure Statements (PTO-1449 or PTO/SB/08)</li> <li>Paper No</li> </ul>   | 6☐ Interview Summary (PTO-413), Paper No  |   |
|  | i), 7□ Examiner's Amendm  | ent/Comment   |
| 4 Examiner's Comment Regarding Requirement for Deposit of Biological Material  | 8⊠ Examiner's Statemer<br>9∐ Other .  | nt of Reasons for Allowance                                   |
| A.V  | inle -  | Anatoly Vortman<br>Primary Examiner<br>Art Unit: 2835         |

Application/Control Number: 09/646,906

Art Unit: 2835

ξ.

## REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

the allowability resides in the overall structure of the device as recited in independent claim 1, and at least in part, because claim 1 recites: "a through hole provided in said circuit board, wherein said thermal fuse is electrically connected to said predetermined circuit via said through hole, wherein the through opening and the heat-conducting insulating member contained therein are free from electrical conductors in the space between the electronic component and the thermal fuse".

The aforementioned limitations in combination with remaining limitations of claim 1 are believed to render said claim 1 and dependent claims 2 and 4 patentable over the art of record.

Combination of Shirakawa and the Applicant's admitted prior art fails to disclose and/or suggest the claimed invention. Specifically, the combination of these references fails to teach and/or suggest that the through opening and the heat- conducting insulating member contained therein are free from electrical conductors in the space between the electrical component and the thermal fuse.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 09/646,906

Art Unit: 2835

Page 3

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on Monday-Friday, between 9:30am and 6:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Anatoly Vortman Primary Examiner Art Unit 2835

A. Vale